DYLAN MAXWELL REILLY

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FEATURED SKILLS

- C / C++
- Swift
- Objective-C
- C#
- Python
- 3D graphics / GLSL
- Git / SVN
- I2C / SPI

- Bluetooth / BLE
- Embedded devices
- FreeRTOS
- iOS
- Android
- Linux
- NoSQL / MySQR
- Li-ion Batteries

- Game development
- Technical leadership
- Arduino / Raspberry Pi
- Hardware prototyping
- MATLAB
- Agile / Scrum
- Kickstarter
- Amazon AWS

WORK EXPERIENCE

SENIOR SOFTWARE ENGINEER   Nov 2017 - PRESENT
Bose

- Significantly contributed to 6 global products: *QuietComfort Earbuds*, *Sport Earbuds*, *Home Speaker 300/500*, *Portable Smart Speaker*. Additionally contributed to: *Noise Cancelling Headphones 700*, *Bose Frames*.
- Design and develop embedded software for wearables and wireless home speakers
- Wearables development on Qualcomm ultra-low power BT audio SoCs with embedded C.
- Speaker work primarily focused on software running on ST Low Power Micros running FreeRTOS and embedded Linux C++.
- Notable features included: system architecture, Li-ion battery/power management, local UI, input handling (tactile and capacitance touch), LED/lightbar control and animation, power management, interrupt handling/debouncing, I2C communication, IPC messaging, and more.

CHIEF TECHNOLOGY OFFICER   JAN 2016 - Nov 2017
Oscilloscape

- Drive technical innovation, direction, and implementation of novel technology for processing audio using neural networks that resonate to acoustic signals.
- Architect and develop formal software implementations of existing research-derived algorithms and processes.
- Engineer (hardware and software) embedded devices for rhythm detection and visualization.
- Draft design documents, source hardware components, and contribute to the creative process for product launch.
- Design and develop first commercial product, Synchrony, and play a key role in development and role-out of Kickstarter campaign.

LEAD MOBILE GAME ENGINEER   JAN 2008 – DEC 2015
Venan Entertainment

- Lead small (2 – 5 person) teams of mobile game developers through rapid development cycles (6 – 18 months).

- Architect and implement game engine, 2D and 3D visuals, AI, tools, and game server systems for free-to-play and traditional titles.
- Work closely with designers and artists to usher games from concept to released product.
- Published titles as lead developer: *Space Miner Wars* (Venan), *RoadTrippin'* (EA Mobile), *NBA Elite 11* (EA Mobile), *Sonic at the Olympic Winter Games* (SEGA USA), and *Monopoly: Here and Now* (EA mobile).
- Published titles as game engine developer: *Book of Heroes* (Venan), *Ninjatown Trees of Doom* (Venan), *Space Miner Blast* (Venan), and *Space Miner Blast* (Venan).

MULTIMEDIA DEVELOPER   MAY 2012 - APRIL 2013
Reality Interactive

- Engineer custom multimedia experiences for top brand companies such as *Time Warner Cable* and *BMW*.
- Integrate all layers of technology from customer experience down to server architecture.
- Design frameworks for minimum spin-up time and maximum reuse.

BIOINFORMATICS DEVELOPER   AUGUST 2005 – DECEMBER 2007
HistoRx

- Engineer, design, architect, and implement a graphical application suite to automate tissue/cell analysis.
- Integrate third party fluorescence microscopy hardware with custom software. Massive tissue microarray (TMA) and whole tissue section (WTS) data sets collected and analyzed in a "one-click" process using cell morphology and bio-marker quantization.
- Advance technology development up through FDA medical device certification.
- Develop and implement new analysis algorithms.
- Design and implement hardware to software interface and GUI's. Manipulate and analyze high precision images.

INTERNET DEVELOPER   JULY 2000 – AUGUST 2005
IBM Global Services

- Open Infrastructure Offerings: Spearhead development of multinational, high-profile, enterprise Java application. Estimated savings of billions of dollars to global operations cost and return on investments.
- HorizonAG: Project lead for a web portal used to manage IP-protected seed products.
- Smart Card Management Services: Develop, expand and enhance a base framework into an application capable of managing millions of cards. Design, create, and implement a client and server through which a user can interact with their personal SmartCard via a PC or kiosk.

PATENTS AND PUBLICATIONS

- Patent: *Compartment segregation by pixel characterization using image data clustering (8,655,037)*, Feb 2014, HistoRx, Inc.
- Patent: *Automatic exposure time selection for imaging tissue (8,878,983)*, Nov 2014, HistoRx, Inc.
- Patent: *Smart card data transaction system and methods for providing high levels of storage and transmission security(7,380,125)*, May 2008, IBM.
- *Development of an unsupervised pixel-based clustering algorithm for compartmentalization of immunohistochemical expression using Automated QUantitative Analysis.* July 2009.
- *Standardization of HER2 immunohistochemistry in breast cancer by automated quantitative*

analysis. September 2009.

EDUCATION

Masters in Mathematics: Western Connecticut State University, Danbury, CT (March 2006)
Bachelor in Physics: Wesleyan University, Middletown, CT (May 2000)